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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,874	02/18/2004	Jeong Dae Seo	K-0610	9489
34610	7590	10/17/2006	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			THOMPSON, CAMIE S	
			ART UNIT	PAPER NUMBER
			1774	

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/779,874

Applicant(s)

SEO ET AL.

Examiner

Camie S. Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed August 4, 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/22/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's amendment and accompanying remarks filed August 4, 2006 are acknowledged.
2. Examiner acknowledges amended claims 1-6 and 8-13.
3. Examiner acknowledges newly added claims 14-19.
4. The rejection of claims 1-13 under 35 U.S.C. 102(e) as being anticipated by Tutt et al., U.S. Pre Grant Publication 2006/0084347 is withdrawn due to applicant's argument.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 and 8 are rendered indefinite because it is unclear as to whether or not the emission layer comprises three emission areas/regions or if the emission layer is a region with three different emission layers. As written, applicant claims three different emission layers not three different emission areas in one layer.

Additionally, it is unclear as to whether or not a hole blocking layer is formed between each emission layer.

Also, claims 15 and 18 are rendered indefinite because it is unclear if the hole blocking layer is formed from compound B-60 from the specification or from a material, B-60.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-6, 8-14, 16-17 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Tung et al., U.S. Patent Number 6,885,025.

Tung discloses an organic light emitting device that has an emission region having at least two emissive layers wherein each emissive layer has a host and emissive dopant and further wherein at least one of the emissive dopants emits by phosphorescence (see column 3, lines 14-20).

Additionally, the reference discloses a hole blocking layer (see column 3, lines 35-47). It is disclosed in the drawings and column 3, line 48-column 4, line 60 that the hole blocking layer can comprise Balq. Figure 1 of the reference discloses that the light emitting device has a hole transport layer, an electron transport layer as well as other layers. Column 14, lines 7-22 discloses a preferred embodiment of three emissive layers. Tung also discloses the use of fluorescent dopants such as DCM and DMQA. Tung discloses the use of phosphorescent dopants such as iridium complexes.

Claim Rejections - 35 USC § 103

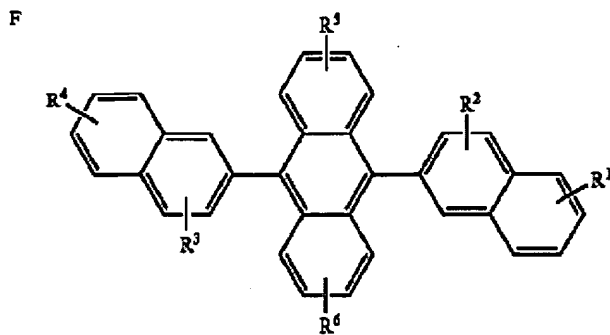
9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tung et al., U.S. Patent Number 6,885,025 in view of Tutt et al., U.S. Pre Grant Publication 2006/0084347.

Tung discloses an organic light emitting device that has an emission region having at least two emissive layers wherein each emissive layer has a host and emissive dopant and further wherein at least one of the emissive dopants emits by phosphorescence (see column 3, lines 14-20).

Additionally, the reference discloses a hole blocking layer (see column 3, lines 35-47). It is disclosed in the drawings and column 3, line 48-column 4, line 60 that the hole blocking layer can comprise Balq. Figure 1 of the reference discloses that the light emitting device has a hole transport layer, an electron transport layer as well as other layers. Column 14, lines 7-22 discloses a preferred embodiment of three emissive layers. Tung also discloses the use of fluorescent dopants such as DCM and DMQA. Tung discloses the use of phosphorescent dopants such as iridium complexes. Tung does not disclose the anthryl compounds that are used in the hole blocking layer. Tutt discloses an organic light emitting device having three emission layers that are green, red and blue. Tutt also discloses that the device comprises a hole blocking layer comprised on an anthryl group such as



The anthryl compound is capable of supporting electroluminescence and particularly suitable for light emission of wavelength longer than 400 nm. Therefore, it would have been obvious to one of ordinary skill in the art to use the anthryl compound from the Tutt reference in the hole blocking layer of the Tung reference in order to obtain blue, green, yellow or red light emission.

Response to Arguments

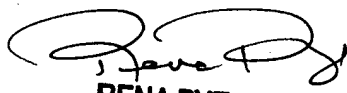
11. Applicant's arguments with respect to the instant claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If

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attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena L Dye, can be reached at (571) 272-3186. The fax phone number for the Group is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


RENA DYE
SUPERVISORY PATENT EXAMINER
Art Unit 1774 10/12/04